

butanoyl-CoA dehydrogenase (NAD⁺, ferredoxin)

Cat. No. EXWM-1281

Lot. No. (See product label)

Introduction

Description

This flavin containing enzyme, isolated from the bacteria Acidaminococcus fermentans and butanoate-producing Clostridia species, couples the exergonic reduction of (E)-but-2-enoyl-CoA to butanoyl-CoA with NADH to the endergonic reduction of ferredoxin by NADH, using electron bifurcation to overcome the steep energy barrier in ferredoxin reduction.

Synonyms

bifurcating butyryl-CoA dehydrogenase; butyryl-CoA dehydrogenase/Etf complex; Etf-Bcd complex; bifurcating butanoyl-CoA dehydrogenase; butanoyl-CoA dehydrogenase/Etf complex

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 1.3.1.109

Reaction

butanoyl-CoA + 2 NAD⁺ + 2 reduced ferredoxin [iron-sulfur] cluster = (E)-but-2-enoyl-CoA + 2 NADH + 2 oxidized ferredoxin [iron-sulfur] cluster

Notes

This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

Storage and Shipping Information

Storage

Store it at +4 °C for short term. For long term storage, store it at -20 °C~-80 °C.